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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,010	07/11/2003	Jerry Pettersson	911568660-001	4389

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JONES DAY
77 WEST WACKER
CHICAGO, IL 60601-1692

EXAMINER

HOLTON, STEVEN E

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/618,010	Applicant(s) PETERSSON, JERRY	
	Examiner Steven E. Holton	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11-13, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 11-13, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-9-06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 3/9/2006. Claims 1-3, 11-13, 21, and 22 are currently pending in the application. An action follows below:

Claim Objections

2. Claim 1 is objected to because of the following informalities: the phrase "controlling a cursor in the form of a digital camera" in lines 4 and 5 is poorly written. The claim is intending to state a digital camera is used as the position sensing means to control a cursor on the display, but the current phrase implies that the cursor is in the form of a digital camera. The Examiner recommends rewriting this portion of the claim to more clearly explain the invention. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 11-13, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rudell et al. (USPN: 6200219), hereinafter Rudell in view of Hinckley et al. (USPN: 6844871), hereinafter Hinckley and further in view of Konishi (USPqPub: 2001/0004271).

Regarding claims 1 and 11, which are drawn to a device and associated method of operation, Rudell discloses a handheld electronic device (Fig. 1, element 10) with a position sensing means (Fig. 4, elements 45, 46, 48, 49, and 50, commonly called a trackball) on the rear side of the device. Where when the position sensing means is moved on a working surface (Fig. 5, element 51) a display screen (Fig. 1, element 14) shows a cursor (Fig. 2, element 16) that moves in response to the movement of the device. The Examiner notes that Rudell does not expressly name a device-to-cursor position coordinate data conversion means, but such a means would be inherent within the device so that the movement of the device could correspond to the movement of the cursor on the screen. Without such a conversion the device would be unusable. Further, the Examiner takes Official Notice that it is well-known in the art to provide a ratio of device movement and coordinates to on-screen movement and coordinates for handheld input devices such as mice and trackballs. The conversion allows the user to move the input device distances that do not correspond directly to the screen environment and allow for smaller movement of the input device.

However, Rudell does not expressly disclose using a digital camera as the input device for determining the position of the input device. Rudell does disclose using an optical sensor (col. 5, lines 20-22). Hinckley discloses a mouse using a digital camera device (Fig. 7, element 234) to determine coordinates of the mouse in X, Y, and Z directions (col. 8, lines 61-64).

At the time of invention it would have been obvious to one skilled in the art to replace the trackball input system used by Rudell with a light sensor input system as

Art Unit: 2629

disclosed by Hinckley. The motivation for doing so would have been to produce an input system that would be to provide an input device with six degrees of freedom that would allow for more variety of input for the overall device (Hinckley col. 1, line 66 – col. 2, line 39). Therefore, it would have been obvious to combine Rudell and Hinckley to produce a device and associated method of operation of claim 1.

However, the combination of Rudell and Hinckley does not expressly disclose using the camera zoom factors to determine the distance to the working surface to be used as a coordinate. Konishi discloses a digital camera that uses the zoom capability of the camera to determine the distance from the camera to an object (paragraphs 36 – 39).

At the time of the invention it would have been obvious to one skilled in the art to combine the teachings of Rudell, Hinckley and Konishi to produce the device as claimed in claim 1. The motivation for doing so would have been to provide the camera means disclosed by Konishi and Hinckley with a distance measuring device to determine the distance of the camera to the working surface underneath the mouse. Thus, it would have been obvious to combine the teachings of Konishi, Rudell and Hinckley to produce the device as specified in claim 1.

Regarding claims 2 and 12, Rudell discloses using the input device to produce movement for an video game (col. 2, lines 2-5).

Regarding claims 3, 13, 21, and 22, Rudell teaches that moving the handheld device in a specific direction will then move the cursor/vehicle image in the

Art Unit: 2629

corresponding direction on the screen (col. 2, line 65 to col. 3, line 5). Such movement is within an X and Y coordinate system.

Response to Arguments

4. Applicant's arguments, see page 9, filed 3/9/2006, with respect to the rejection(s) of claim(s) 1 and 11 under 35 U.S.C. 103 have been fully considered and are persuasive in view of the amendments to the claims. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found and applied prior art.

The Examiner notes that the amendments to independent claims 1 and 11 appear to be adding the limitation of using the zoom feature of the digital camera to determine the distance from the device to the working surface. The camera system used by Hinckley does provide for height measurement and could be replaced by the optical measurement system of Konishi as a matter of design choice as well as the system of Konishi would provide the ability to measure longer distances based on the zooming features of the lenses than a no lense system as described by Hinckley.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bradski (USPN: 6798429) discloses a device with 3 dimensional positioning using various methods of determining the location of the device.

Art Unit: 2629

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
June 8, 2006


BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600